1600

RAW SEQUENCE LISTING                      DATE: 04/15/2003
PATENT APPLICATION:  US/09/498,556C        TIME: 13:22:09

Input Set : A:\Corvas-sequence listing.txt
Output Set: N:\CRF4\04152003\I498556C.raw

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2  <110> APPLICANT: Corvas International , Inc.
4        Vlasuk, George Phillip
5        Stanssens, Patrick Eric Hugo
6        Messens, Joris Hila Lieven
7        Lauwereys, Marc Josef
8        Laroche, Yves Rene
9        Jespers, Laurent Stephane
10       Gansemans, Yannick Georges Jozef
11       Moyle, Matthew
12       Bergum, Peter W.
14  <120> TITLE OF INVENTION: NEMATODE-EXTRACTED SERINE PROTEASE INHIBITORS AND
ANTICOAGULANT PROTEIN
16  <130> FILE REFERENCE: 018813/0272487
18  <140> CURRENT APPLICATION NUMBER: 09/498,556C
19  <141> CURRENT FILING DATE: 2000-04-03
21  <150> PRIOR APPLICATION NUMBER: 08/839,455
22  <151> PRIOR FILING DATE: 1997-04-17
24  <150> PRIOR APPLICATION NUMBER: PCT/US95/13231
26  <151> PRIOR FILING DATE: 1995-10-17
27  <150> PRIOR APPLICATION NUMBER: 08/486,399
29  <151> PRIOR FILING DATE: 1995-06-05
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34  <151> PRIOR FILING DATE: 1995-06-05
36  <150> PRIOR APPLICATION NUMBER: 08/461,965
37  <151> PRIOR FILING DATE: 1995-06-05
39  <150> PRIOR APPLICATION NUMBER: 08/326,110
40  <151> PRIOR FILING DATE: 1994-10-18
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56  tgcaaggcaa agtgcaatca ggaacccct gaggaggaag atccgatatg ccgctcacgt 120
58  agtnattat tacctcctac ttggtatc aagacggat tctacagaga cacggtgatc 180
60  ttcnactatg ttgggtaaaa agaatgcgac caacatgaga ttatacatgt ctga   234
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66  <213> ORGANISM: Ancyclostoma caninum
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74 cccggtcccg ctgcttcgt atgcgaagac ggattctaca gagacacggt gatcggcgac 180
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86 <222> LOCATION: (..)..(321)
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90 <223> OTHER INFORMATION: AcaNAPs cDNA sequence
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96                         1              5                  10
97 ttt ctg ctg gta tct tta tgc agc gca aga aca gtg agg aag gca tac 99
98 Phe Leu Leu Val Ser Leu Cys Ser Ala Arg Thr Val Arg Lys Ala Tyr
99         15               20               25
100 ccg gag tgt ggt gag aat gaa tgg ctc gac gac tgt gga act cag aag 147
101 Pro Glu Cys Gly Glu Asn Glu Trp Leu Asp Asp Cys Gly Thr Gln Lys
102         30               35               40
103 cca tgc gag gcc aag tgc aat gag gaa ccc cct gag gag gaa gat ccg 195
104 Pro Cys Glu Ala Lys Cys Asn Glu Glu Pro Pro Glu Glu Glu Asp Pro
105         45               50               55
106 ata tgc cgc tca cgt ggt tgt tta tta cct cct gct tgc gta tgc aaa 243
107 Ile Cys Arg Ser Arg Gly Cys Leu Leu Pro Pro Ala Cys Val Cys Lys
108         60               65               70
109 gac gga ttc tac aga gac acg gtg atc ggc gac tgt gtt agg gaa gaa 291
110 Asp Gly Phe Tyr Arg Asp Thr Val Ile Gly Asp Cys Val Arg Glu Glu
111 75               80               85               90
112 gaa tgc gac caa cat gag att ata cat gtc tgaacgagaaa gaacaataac 344
113 Glu Cys Asp Gln His Glu Ile Ile His Val
114         95               100
115 aaagttcca actctctc tgcaaatcg ctagttgat gtctctttg cgtccgaata 404
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129 15               20               25
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RAW SEQUENCE LISTING      DATE: 04/15/2003
PATENT APPLICATION:   US/09/498,556C     TIME: 13:22:09

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Output Set : N:\CRF4\04152003\I498556C.raw

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132  Leu Leu Pro Pro Ala Cys Val Cys Lys Asp Gly Phe Tyr Arg
133          45                    50                    55
134  Asp Thr Val Ile Gly Asp Cys Val Arg Glu Glu Glu Cys Asp
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136  Gln His Glu Ile Ile His Val
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157                           1             5                   10
158  ttt ctc ctg gtg tca tta tgc agc aca aga aca gtg agg aag gca tac 99
159  Phe Leu Leu Val Ser Leu Cys Ser Thr Arg Thr Val Arg Lys Ala Tyr
160                   15                    20                    25
161  ccg gag tgt ggt gaa aat gaa tgg ctc gac gtc tgt gga act aag aag 147
162  Pro Glu Cys Gly Glu Asn Glu Trp Leu Asp Val Cys Gly Thr Lys Lys
163          30                    35                    40
164  cca tgc gag gcc aag tgc agt gag gaa gag gag gaa gat ccg ata tgc 195
165  Pro Cys Glu Ala Lys Cys Ser Glu Glu Glu Glu Asp Pro Ile Cys
166          45                    50                    55
167  cga tca ttt tct tgt ccg ggt ccc gct gct tgc gta tgc gaa gac gga 243
168  Arg Ser Phe Ser Cys Pro Gly Pro Ala Ala Cys Val Cys Glu Asp Gly
169          60                    65                    70
170  ttc tac aga gac acg gtg atc ggc gac tgt gtt aag gaa gaa gaa tgc 291
171  Phe Tyr Arg Asp Thr Val Ile Gly Asp Cys Val Lys Glu Glu Glu Cys
172  75                    80                    85                    90
173  gac caa cat gag att att cat gtc tgaacgagag agcagtaata accaaagcttc 346
174  Asp Gln His Glu Ile Ile His Val
175                  95
176  caacttcgc tctacaaat cgctagttgg attctcctt tgcgtgcgaa tagtttcagt 406
177  tcatcttaag taaaactcc tgttgaagag aataaagctt tccaacttc         455
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183  <212> TYPE: PRT
184  <213> ORGANISM: Ancyclostoma caninum
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188  Lys Ala Tyr Pro Glu Cys Gly Glu Asn Glu Trp Leu Asp Val Cys Gly
189  1               5                    10                    15
190  Thr Lys Lys Pro Cys Glu Ala Lys Cys Ser Glu Glu Glu Glu Glu Asp
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PATENT APPLICATION:  US/09/498,556C      TIME: 13:22:09

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Output Set: N:\CRF4\04152003\I498556C.raw

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191                 20                25                30
192 Pro Ile Cys Arg Ser Phe Ser Cys Pro Gly Pro Ala Ala Cys Val Cys
193            35                40                45
194 Glu Asp Gly Phe Tyr Arg Asp Thr Val Ile Gly Asp Cys Val Lys Glu
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197 65                70                75

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207 Arg Thr Val Arg Lys Ala Tyr Pro Glu Cys Gly Glu Asn Glu Trp Leu
208 1               5                 10                15
209 Asp Asp Cys Gly Thr Gln Lys Pro Cys Glu Ala Lys Cys Asn Glu Glu
210            20                25                30
211 Pro Pro Glu Glu Glu Asp Pro Ile Cys Arg Ser Arg Gly Cys Leu Leu
212            35                40                45
213 Pro Pro Ala Cys Val Cys Lys Asp Gly Phe Tyr Arg Asp Thr Val Ile
214      50                55                60
215 Gly Asp Cys Val Arg Glu Glu Glu Cys Asp Gln His Glu Ile Ile His
216 65                70                75                80
217 Val

218 <210> SEQ ID NO: 8
219 <211> LENGTH: 79
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222 <400> SEQUENCE: 8
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218 1               5                 10                15
219 Asp Val Cys Gly Thr Lys Lys Pro Cys Glu Ala Lys Cys Ser Glu Glu
220            20                25                30
221 Glu Glu Glu Asp Pro Ile Cys Arg Ser Phe Ser Cys Pro Gly Pro Ala
222            35                40                45
223 Ala Lys Val Cys Glu Asp Gly Phe Tyr Arg Asp Thr Val Ile Gly Asp
224      50                55                60
225 Cys Val Lys Glu Glu Glu Cys Asp Gln His Glu Ile Ile His Val
226 65                70                75

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246 <220> FEATURE:
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248 <223> OTHER INFORMATION: Recombinant cDNA Molecule AceNAP4 sequence
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RAW SEQUENCE LISTING     DATE: 04/15/2003
PATENT APPLICATION:   US/09/498,556C     TIME: 13:22:09

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                             1               5                  10
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     Leu Leu Leu Val Ser Gln Cys Ser Gly Lys Pro Asn Asn Val Met Thr
                  15              20                  25
     aac gct tgt ggt ctt aat gaa tat ttc gct gag tgt ggc aat atg aag 146
     Asn Ala Cys Gly Leu Asn Glu Tyr Phe Ala Glu Cys Gly Asn Met Lys
              30                  35                  40
     gaa tgc gag cat aga tgc aat gag gag gaa aat gag gaa acg gac gag 194
     Glu Cys Glu His Arg Cys Asn Glu Glu Glu Asn Glu Glu Arg Asp Glu
              45                  50                  55
     gaa aga ata acg gca tgc ctc atc cgt gtg tgt ttc cgt cct ggt gct 242
     Glu Arg Ile Thr Ala Cys Leu Ile Arg Val Cys Phe Arg Pro Gly Ala
              60                  65                  70
     tgc gta tgc aaa gac gga ttc tat aga aac aga aca ggc agc tgt gta 290
     Cys Val Cys Lys Asp Gly Phe Tyr Arg Asn Arg Thr Gly Ser Cys Val
         75                  80                  85                  90
     gaa gaa gat gac tgc gag tac gag aat atg gag ttc att act ttt gca 338
     Glu Glu Asp Asp Cys Glu Tyr Glu Asn Met Glu Phe Ile Thr Phe Ala
                  95                 100                 105
     cca gaa gta ccg ata tgt ggt tcc aac gaa agg tac tcc gac tgc ggc 386
     Pro Glu Val Pro Ile Cys Gly Ser Asn Glu Arg Tyr Ser Asp Cys Gly
                 110                 115                 120
     aat gac aaa caa tgc gag cgc aaa tgc aac gag gac gat tat gag aag 434
     Asn Asp Lys Gln Cys Glu Arg Lys Cys Asn Glu Asp Asp Tyr Glu Lys
                 125                 130                 135
     gga gat gag gca tgc cgc tca cat gtt tgt gaa cgt cct ggt gcc tgt 482
     Gly Asp Glu Ala Cys Arg Ser His Val Cys Glu Arg Pro Gly Ala Cys
             140                 145                 150
     gta tgc gaa gac ggg ttc tac aga aac aaa aaa ggt agc tgt gtg gaa 530
     Val Cys Glu Asp Gly Phe Tyr Arg Asn Lys Lys Gly Ser Cys Val Glu
         155                 160                 165                 170
     agc gat gac tgc gaa tac gat aat atg gat ttc atc act ttt gca cca 578
     Ser Asp Asp Cys Glu Tyr Asp Asn Met Asp Phe Ile Thr Phe Ala Pro
                 175                 180                 185
     gaa acc tca cga taccataga tgctacctct cgtacgaac tcgctgatt gaggtt 636
     Glu Thr Ser Arg
                 190
     gattcactcc cttgcatctc aacatttttt ttgtgatgct gtgcatctga gcttaacctg 696
     ataaagcctt tggtg                711
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RAW SEQUENCE LISTING ERROR SUMMARY          DATE: 04/15/2003
PATENT APPLICATION:  US/09/498,556C         TIME: 13:22:10

Input Set : A:\Corvas-sequence listing.txt
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
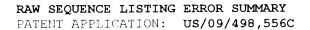to <223> fields of each sequence which presents at least one n or Xaa.


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PATENT APPLICATION:   US/09/498,556C        TIME: 13:2?:10

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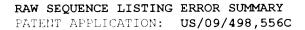
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PATENT APPLICATION:   US/09/498,556C     TIME: 13:22:10

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Output Set: N:\CRF4\04152003\I498556C.raw

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Seq#:226; Xaa Pos. 2,3,4,5
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Seq#:235; Xaa Pos. 23,24
Seq#:236; Xaa Pos. 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22
Seq#:236; Xaa Pos. 23
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Seq#:241; Xaa Pos. 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18
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RAW SEQUENCE LISTING ERROR SUMMARY    DATE: 04/15/2003
PATENT APPLICATION:   US/09/498,556C    TIME: 13:??:10

Input Set : **A:\Corvas-sequence listing.txt**
Output Set: **N:\CRF4\04152003\I498556C.raw**

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Seq#:256; Xaa Pos. 3,3,4,5
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Seq#:265; Xaa Pos. 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16
Seq#:266; Xaa Pos. 1,2,3,4,6,7,8,9,10,11,12,13,14,15
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Seq#:283; Xaa Pos. 23,24,25,26
Seq#:284; Xaa Pos. 3,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22
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Seq#:286; Xaa Pos. 23
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RAW SEQUENCE LISTING ERROR SUMMARY          DATE: 04/15/2003
PATENT APPLICATION:   US/09/498,556C          TIME: 13:22:10

Input Set : A:\Corvas-sequence listing.txt
Output Set: N:\CRF4\04152003\I498556C.raw

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Seq#:293; Xaa Pos. 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16
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Seq#:306; Xaa Pos. 2,3
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Seq#:311; Xaa Pos. 2,3,4
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RAW SEQUENCE LISTING ERROR SUMMARY        DATE: 04/15/2003
PATENT APPLICATION:    US/09/498,556C        TIME: 13:::::10

Input Set : **A:\Corvas-sequence listing.txt**
Output Set: **N:\CRF4\04152003\I498556C.raw**

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Seq#:355; Xaa Pos. 2,3,4,5,6,7
Seq#:356; Xaa Pos. 2,3,4,5,6
Seq#:357; Xaa Pos. 2,4
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**Invalid Line Length:**
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:68; Line(s) 1996,2001